

What is claimed is:

1. A method of stimulating B-cell growth in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:
 - (a) a BAFF ligand or an active fragment thereof;
 - (b) a BAFF ligand or an active fragment thereof and an anti-T antibody;
 - (c) a BAFF ligand or an active fragment thereof and a CD40 ligand; and
 - (d) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule.
2. A method of stimulating immunoglobulin production in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:
 - (a) a BAFF ligand or an active fragment thereof;
 - (b) a BAFF ligand or an active fragment thereof and an anti-T antibody;
 - (c) a BAFF ligand or an active fragment thereof and a CD40 ligand;
 - (d) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule.
3. A method of co-stimulating B-cell growth and immunoglobulin production in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:
 - (a) a BAFF ligand or an active fragment thereof;
 - (b) a BAFF ligand or an active fragment thereof and an anti-T antibody;
 - (c) a BAFF ligand or an active fragment thereof and a CD40 ligand; and
 - (d) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule.
4. A method of stimulating dendritic cell-induced B-cell growth and maturation comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (a) a BAFF ligand or an active fragment thereof;
- (b) a BAFF ligand or an active fragment thereof and an anti-T antibody;
- (c) a BAFF ligand or an active fragment thereof and a CD40 ligand; and
- (d) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule.

5 5. The method according to claims 1-4 wherein the BAFF ligand is a soluble BAFF ligand.

10 6. The method according to claim 5 wherein the soluble BAFF ligand is a recombinant BAFF ligand.

 7. The method according to claims 1-4 wherein the anti-CD40 molecule is a monoclonal antibody.

15 8. The method according to claims 1-4 wherein the animal is of mammalian origin.

 9. The method according to claim 8 wherein the mammal is human.

20 10. A method of inhibiting B-cell growth in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (a) a anti-BAFF ligand molecule or an active fragment thereof;
- (b) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- (c) an antibody specific for BAFF ligand or an active fragment thereof; and
- (d) an antibody specific for BAFF ligand receptor or an epitope thereof.

25 11. A method of inhibiting immunoglobulin production in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- 30 (a) a anti-BAFF ligand molecule or an active fragment thereof;

- (b) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- (c) an antibody specific for BAFF ligand or an active fragment thereof; and
- (d) an antibody specific for BAFF ligand receptor or an epitope thereof.

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12. A method of co-inhibiting B-cell growth and immunoglobulin production in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (a) a anti-BAFF ligand molecule or an active fragment thereof;
- (b) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- (c) an antibody specific for BAFF ligand or an active fragment thereof; and
- (d) an antibody specific for BAFF ligand receptor or an epitope thereof.

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13. A method of inhibiting dendritic cell-induced B-cell growth and maturation in an animal comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (a) a anti-BAFF ligand molecule or an active fragment thereof;
- (b) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- (c) an antibody specific for BAFF ligand or an active fragment thereof; and
- (d) an antibody specific for BAFF ligand receptor or an epitope thereof.

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14. The method according to claims 10-13, wherein the anti-BAFF ligand is soluble.

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15. The method according to claim 14, wherein the soluble anti-BAFF ligand is a recombinant anti-BAFF ligand.

16. The method according to claims 10-13, wherein the anti-BAFF antibody is a monoclonal antibody.

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The method according to claims 10-13, wherein the anti-BAFF receptor antibody is a monoclonal antibody.

17. A method of treatment of an autoimmune disease comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (a) a BAFF ligand or an active fragment thereof;
- (b) a BAFF ligand or an active fragment thereof and an anti-T antibody;
- (c) a BAFF ligand or an active fragment thereof and a CD40 ligand;
- (d) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule;
- (e) a anti-BAFF ligand molecule or an active fragment thereof;
- (f) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- (g) an antibody specific for BAFF ligand or an active fragment thereof; and
- (h) an antibody specific for BAFF ligand receptor or an epitope thereof.

18. A method of treating a disorder related to BAFF-ligand comprising the steps of:

- (a) introducing into a desired cell a therapeutically effective amount of a vector containing a gene encoding for a BAFF-related molecule; and
- (b) expressing said gene in said cell.

19. The method according to claim 18, wherein the BAFF-related molecule is selected from the group consisting of:

- (a) a BAFF ligand or an active fragment thereof;
- (b) a BAFF ligand or an active fragment thereof and an anti-T antibody;
- (c) a BAFF ligand or an active fragment thereof and a CD40 ligand;
- (d) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule;
- (e) a anti-BAFF ligand molecule or an active fragment thereof;
- (f) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;

- (g) an antibody specific for BAFF ligand or an active fragment thereof; and
- (h) an antibody specific for BAFF ligand receptor or an epitope thereof.

- 5 20. The method according to claims 17-19, wherein the BAFF ligand is a soluble BAFF ligand.
21. The method according to claim 20, wherein the soluble BAFF ligand is a recombinant BAFF ligand.
- 10 22. The method according to claims 17-19, wherein the anti-CD40 molecule is a monoclonal antibody.
23. The method according to claims 17-19, wherein the anti-BAFF ligand is soluble.
- 15 24. The method according to claim 23, wherein the soluble anti-BAFF ligand is a recombinant anti-BAFF ligand.
- 20 25. The method according to claims 17-19, wherein the anti-BAFF antibody is a monoclonal antibody.
26. The method according to claims 17-19, wherein the anti-BAFF receptor antibody is a monoclonal antibody.
- 25 27. A method of inducing cell death comprising the administration of an agent capable of interfering with the binding of a BAFF-ligand to a receptor.
- 30 28. A method of treating, suppressing or altering an immune response involving a signaling pathway between a BAFF-ligand and its receptor comprising the step of administering an effective amount of an agent capable of interfering with the association between the BAFF-ligand and its receptor.

29. A method of inhibiting inflammation comprising the step of administering a therapeutically effective amount of an antibody specific for a BAFF-ligand or an active fragment thereof.
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30. A method of inhibiting inflammation comprising the step of administering a therapeutically effective amount of an antibody specific for a BAFF-ligand receptor or an epitope thereof.
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31. A method of regulating hematopoietic cell development comprising the step of administering a therapeutically effective amount of a BAFF-ligand or an active fragment thereof.
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32. A method of treating, suppressing or altering an immune response involving a signaling pathway between a BAFF-ligand and its receptor comprising the step of administering an effective amount of an agent capable of interfering with the association between the BAFF-ligand and its receptor.
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33. A method of treating hypertension in an animal comprising the step of administering a therapeutically effective amount of a B-cell growth inhibitor.
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34. The method according to claim 33, wherein the B-cell growth inhibitor is selected from the group consisting of:
- (e) (a) a anti-BAFF ligand molecule or an active fragment thereof;
 - (f) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
 - (g) an antibody specific for BAFF ligand or an active fragment thereof; and
 - (h) an antibody specific for BAFF ligand receptor or an epitope thereof.
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35. The method according to claim 34, wherein the anti-BAFF ligand is soluble.

36. The method according to claim 35, wherein the soluble anti-BAFF ligand is a recombinant anti-BAFF ligand.
- 5 37. The method according to claim 34, wherein the anti-BAFF antibody is a monoclonal antibody.
38. The method according to claim 34, wherein the anti-BAFF receptor antibody is a monoclonal antibody.
- 10 39. The method according to claim 34, wherein the animal is of mammalian origin.
40. The method according to claim 39, wherein the mammal is human.
- 15 41. A method of treating hypertension in an animal comprising the step of administering a therapeutically effective amount of a co-inhibitor of B-cell growth and immunoglobulin secretion.
- 20 42. A method of treating cardiovascular disorders in an animal comprising the step of administering a therapeutically effective amount of a B-cell growth inhibitor.
43. A method of treating cardiovascular disorders in an animal comprising the step of administering a therapeutically effective amount of a co-inhibitor of B-cell growth and immunoglobulin production.
- 25 44. A method of treating renal disorders in an animal comprising the step of administering a therapeutically effective amount of a B-cell growth inhibitor.
- 30 45. A method of treating renal disorders in an animal comprising the step of administering a therapeutically effective amount of a co-inhibitor of B-cell growth and immunoglobulin production

46. A method of treating B-cell lympho-proliferate disorders comprising the step of administering a therapeutically effective amount of a B-cell growth inhibitor.

5 47. A method of stimulating B-cell production in the treatment of immunosuppressive diseases comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (e) a BAFF ligand or an active fragment thereof;
- (f) a BAFF ligand or an active fragment thereof and an anti-T antibody;
- 10 (g) a BAFF ligand or an active fragment thereof and a CD40 ligand;
- (h) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule;
- (i) a anti-BAFF ligand molecule or an active fragment thereof;
- (j) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- (k) an antibody specific for BAFF ligand or an active fragment thereof; and
- (l) an antibody specific for BAFF ligand receptor or an epitope thereof.

15 48. A method of stimulating B-cell production in the treatment of an immunosuppressive disease comprising the step of administering a therapeutically effective amount of a composition selected from the group consisting of:

- (i) a BAFF ligand or an active fragment thereof;
- (j) a BAFF ligand or an active fragment thereof and an anti-T antibody;
- (k) a BAFF ligand or an active fragment thereof and a CD40 ligand;
- 25 (l) a BAFF ligand or an active fragment thereof and an anti-CD40 ligand molecule;
- (m) a anti-BAFF ligand molecule or an active fragment thereof;
- (n) a recombinant, inoperative BAFF ligand molecule or an active fragment thereof;
- 30 (o) an antibody specific for BAFF ligand or an active fragment thereof; and

- 49. A method according to claim 48 wherein the immunosuppressive disease is HIV.
- 50. A method according to claim 49 wherein the immunosuppressive disease is associated with an organ transplantation.

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F04C40/42T660